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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/583,128

04/12/2007

Masakazu Katsumata

46884-5485

3225

55694 7590 05/13/2009  
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EXAMINER

HINES, JANA A

ART UNIT

PAPER NUMBER

1645

MAIL DATE

DELIVERY MODE

05/13/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/583,128	<b>Applicant(s)</b> KATSUMATA ET AL.	
	<b>Examiner</b> JaNa Hines	<b>Art Unit</b> 1645	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 04 April 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-25 are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

**DETAILED ACTION**

***Election/Restrictions***

1. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 1 and 5-12 are drawn to a toxic substance assay method of assaying a toxic substance present in an aqueous solution sample to be tested, wherein the assay values are elapsed times of characteristic points in temporal variations of the light amounts of delayed fluorescence acquired in the first step and the second step.

Group II, claim(s) 2-4 and 18-25 are drawn to a toxic substance assay method of assaying a toxic substance present in an aqueous solution sample to be tested wherein the assay values are temporal variations of the light amounts of delayed fluorescence acquired in the first step and the second step, and the comparison value is a value obtained by determining a difference of the temporal variations.

Group III, claims 13-15 are drawn to toxic substance assay method for assaying a toxic substance present in an aqueous solution sample to be tested, the toxic substance assay method comprising: a preparing step of mixing the aqueous solution sample with a photosynthetic sample, having a photosynthetic function, to prepare a test measurement solution; a standing step of letting the test measurement solution stand for a predetermined standing time; a measuring step of illuminating light onto the test measurement solution for a predetermined illumination time and thereafter measuring the light amount of delayed fluorescence that is emitted; an assaying step of assaying the toxic substance present in the aqueous solution sample based on the light amount of delayed fluorescence acquired in the measuring step; and an acclimating step, preceding the measuring step and including one of either a dark standby step of subjecting the test measurement solution to a dark standby for a predetermined standby time or a preliminary illuminating step of subjecting the test measurement solution to a preliminary light illumination and to a dark standby for a predetermined standby time.

Group IV, claim(s) 16-17 are drawn to a toxic substance assay kit comprising: a photosynthetic sample to be mixed with the aqueous solution sample; a salt mixture for adjusting the salt concentration and pH of the aqueous solution sample; and a mixing means that mixes the aqueous solution sample with the photosynthetic sample and with the salt mixture in a separated manner.

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2. The inventions listed as Groups I-IV do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

Each group has a different and distinct ability, unrelated to the other groups. The Method of Group III, comprising steps unrelated to the methods recited in Groups I and II. For instance, neither Group I nor Group II recites a preparation; a mixing step; a standing step; a measuring step; and an acclimating step. Therefore the method of Group III can be used separately from the other methods. Furthermore the kit of Group IV requires components need used by the methods of Groups I-III. For instance, none of groups I-III require a salt mixture for adjusting the salt concentration and pH of the aqueous solution sample. Therefore, the kit's special technical feature is comprised within the individual components; therefore the groups lack the same or corresponding technical feature.

Groups I and IV, is drawn to an unrelated inventions because it use, function and effect are patentably distinct in comparison to the other groups. Group I has a different special technical feature when compared to the claim of Group IV; because the recited method steps comprise the special technical feature. These special technical features are comprised within their differences and their ability to have different final results. Accordingly, the groups lack a corresponding technical feature. Finally, Groups I-VI are unrelated and do not share a special technical feature because each product has a separate and distinct purpose with separate and distinct final outcomes and a different kit characterized by its inclusion of different components.

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Therefore, there is no corresponding special technical feature between the groups I-VII.

3. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

4. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

The election of an invention or species may be made with or without traverse. To preserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse.

5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

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6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JaNa Hines whose telephone number is (571)272-0859.

The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Mondesi can be reached on 571-272-0956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/JaNa Hines/  
Examiner, Art Unit 1645

/Mark Navarro/  
Primary Examiner, Art Unit 1645